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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,944	08/31/2000	Oleg Drapkin	ATI-000152BT	3407
25310	7590	09/12/2005	EXAMINER	
VOLPE AND KOENIG, P.C. DEPT. ATI UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			NGUYEN, HIEP	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/651,944

Applicant(s)

DRAPKIN ET AL.

Examiner

Hiep Nguyen

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32,34-36,38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32,34-36,38 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Specification***

The disclosure is objected to because of the following informalities: The disclosure “in the case where the signal is a negative going edge, ... the tracking device, the parasitic capacitor is prevented from discharging into the receiver thereby preventing a disturbance of the input signal and preventing "glitches"” on pages 4 and 5 is not relevant because it is not clear how the negative going edge can prevent from discharging into the receiver”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 32, 34, 35, 38 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction and/ or clarification is required.

Regarding claim 32, the recitation “a charge pump circuit” is indefinite because it is misdescriptive. No charge pump circuit is seen in the drawing. Transistor (20) or current source (12) is not a charge pump circuit. The same rationale is true for the “a charge pump” in claim 34. The recitation “said charge pump having a transistor which is activated for preventing discharge of said parasitic capacitance into the input of the circuit by preventing a change of voltage at said input responsive to detection of a rate of change of a negative edge of said input signal” is indefinite because it is not clear how the transistor (20) can prevent discharge of the parasitic capacitance into the input of the circuit responsive to detection of a rate of change of a negative edge of said input signal. Clear explanation is required. The same rationale is applied to the recitation “said charge pump having a first transistor ... at said input responsive to detection of a rate of change of a negative edge of said input signal” in claim 34.

Regarding claim 35, the recitation “said current source and said second transistor coupled between said common terminal and to an output of said detection circuit” is indefinite

Art Unit: 2816

because it is misdescriptive. Figure 2C of the present application shows that the “current source” (12) and the “second transistor (14) are not coupled between said common terminal (22) and to an output of said detection circuit (Ct). The output of the detection circuit (Ct) and the common terminal (22) are connected to a same node (22).

Regarding claim 38, the recitation “wherein said detection circuit being isolated from said output” is indefinite because it is not clear what is the “said output” in the drawing. The recitation “said output” does not have antecedent basis. It is not clear as to this “said output” is the same or different than the “an output” in claim 35. The Applicant is requested to show the “said output” in the drawing.

Regarding claim 39, the recitation “said detection circuit is independent of said circuit operating at a high frequency” is indefinite because it is not clear what “independent” is meant by because, in figure 2C, the “said circuit R” and “said detection circuit Ct” are both function based on a same input signal, they are not “independent” of each other.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 32 is rejected under 35 U.S.C. 102(e) as being anticipated by Nguyen et al. (USP. 5,973,967).

Regarding claim 32, figure 2 of Nguyen shows a method for reducing distortion of a signal applied to an input of a high frequency circuit (34) inherently having a parasitic capacitance between said input and ground, comprising the steps of:

employing a device (MP1, NM1) responsive to a rate of change of voltage for detecting at said input a direction of change in voltage of said input signal; and

activating a charge pump (MP2) for introducing a current to said parasitic capacitance to prevent said parasitic capacitance from drawing current from said input signal

Art Unit: 2816

responsive to detection of a rate of change of a positive edge of said input signal by said device: and

said charge pump having a transistor (MP2) which is activated for preventing discharge of said parasitic capacitance into the input of the circuit by preventing a change of voltage at said input responsive to detection of a rate of change of a negative edge of said input signal. Note that at the positive edge of the input signal (IN), transistor (MP2) is turned on and a current is injected to the input to compensate the current drawn by the parasitic capacitance. At the falling edge of the input signal, transistor (MN2) is turned on and the charge on the parasitic capacitance is bypassed to ground thus, change of voltage at said input is prevented.

Claims 34-36, 38 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Miranda et al. (USP. 6,204,654).

Regarding claim 34, figure 3 of Miranda shows an apparatus for reducing distortion of a signal applied to an input of a circuit (not shown, coupled to the input terminal 34) operating at high frequency and inherently having a parasitic capacitance between said input and ground, comprising:

a rate of change of voltage detection circuit (30) coupled to said input for detecting a change in voltage of said input signal coupled to said input; and

a correction circuit comprising a "charge pump circuit" (38, 40) coupled between said detection circuit and said input to generate a current for compensating for current from said input signal diverted to said parasitic capacitance responsive to a rate of change of voltage of a positive edge of said input signal detected by said detection circuit.

said detection circuit (30) comprises a capacitor coupled between a common terminal internal to circuit (30) and said input: and

said charge pump (38) having a first transistor which is activated for preventing discharge of said parasitic capacitance into the input of said circuit operating at a high frequency by preventing a change of voltage at said input responsive to detection of a rate of change of a negative edge of said input signal (col. 4). Note that the output of the detection circuit (30) is coupled to the input (34). At a negative edge of the input signal, the output of

Art Unit: 2816

the detection circuit is low, thus this low voltage prevent the change of the voltage at the input due to the charged parasitic capacitance.

Regarding claim 35, in figure 3, the current source is element (40) and the second transistor is included in element (38)

Regarding claim 36, figure 5-7 of Miranda shows that the transistors of the circuit are MOS transistors.

Regarding claims 38 and 39, the "said circuit", not shown, coupled to the input terminal thus; the detection circuit is independent of "said circuit".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep Nguyen whose telephone number is (571) 272-1752. The examiner can normally be reached on Monday to Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hiep Nguyen

09-06-05



TUAN T. LAM
PRIMARY EXAMINER